Northern California Steelhead

Hatchery Program Assessment

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Northern California Steelhead ESU

- NC steelhead included in the ESU
  - Yager Creek Hatchery program
  - North Fork Gualala River Hatchery/Gualala River Steelhead Project program
  - And other natural populations with no hatchery programs
- NC steelhead not included in the ESU
  - Mad River Hatchery program

Northern California Steelhead ESU programs

non-ESU programs

Northern California Steelhead ESU

Population area (hatchery stock)	Isolated or integrated	Program type	Purpose	Production goal	Year Initiated
Artificial Propagation Programs that Produce Fish Included in ESU					
Yager Creek Hatchery	Integrated	Smolt	Augment.	5,000	1972
N.F. Gualala River Hatch.	Integrated	Smolt	Rescue	15,000	1981
Artificial Propagation Programs that Produce Fish NOT Included in ESU					
Mad River Hatchery	Integrated	Smolt	Harvest	250,000	1970

Viable Salmon Populations

Abundance
Productivity
Spatial Structure
Diversity

Effect on Abundance

- Yager Creek Hatchery has not been in operation for several years and there are no plans for reopening the hatchery.
- Gualala River Steelhead Project has terminated the hatchbox rearing program to concentrate on the rescue rearing program.

Effect on Productivity

- Gualala River Hatchery rescue and rearing program benefits productivity by salvaging steelhead that would be lost from the population. In some seasons they may comprise a substantial component of returns for a year class.

Effect on Spatial Structure

- No evidence of an expanding distribution of the Gualala River.
- No evidence of contribution to spatial structure from the Yager Creek hatchery program.

Effect on Diversity

- Both hatcheries reared local native stocks.
- Yager Creek Hatchery spawned only natural (unclipped) fish, but did not incorporate grilse into the program.
- The Gualala River Steelhead Project rescues up to 15,000 fish of all year classes, and rears them until conditions permit release into N.F. Gualala River tributaries.
- The Gualala River Steelhead Project also conducted a hatchbox rearing program up until this year, spawning only unclipped fish returns.

Effect of Artificial Propagation on VSP Attributes Northern California Steelhead

Viability Criteria	BRT VSP Risk Score	Decreases Risk	Neutral or Uncertain	Increases Risk
Abundance	3.7	√		
Productivity	3.3		√	
Spatial Structure	2.2		√	
Diversity	2.5		√	

Recommendation: No Change to BRT's Finding

What is the biological status of the ESU in total (including hatchery stocks/populations, mixed populations, and natural populations)?

Northern California Steelhead	Biological Status for the ESU in-total		
	"in danger of extinction throughout all or a significant portion of its range"	"likely to become endangered within the foreseeable future throughout all or a significant portion of its range"	Neither "in danger of extinction…" or "likely to become endangered…"
BRT's findings for the ESU natural components	11%	74%	14%